Textbook Alignment to the Utah Core – Algebra 1

This alignment has been completed using an "Independent Alignment Vendor" from the USOE approved list (<u>www.schools.utah.gov/curr/imc/indvendor.html</u> .) Yes <u>X</u> No					
Name of Company and Individual Conducting Alignment:	Waterloo Education LLC				
A "Credential Sheet" has been completed on the above company/	evaluator and is (Please check one of the following):				
☑ On record with the USOE.					
☐ The "Credential Sheet" is attached to this alignment.					
Instructional Materials Evaluation Criteria (name and grade of the	he core document used to align): Algebra 1 Core Curriculum				
Title: <u>Saxon Math Algebra 1</u>	ISBN#: <u>9781602773028</u>				
Publisher:Houghton Mifflin Harcourt Supplemental Inc					
Overall percentage of coverage in the <i>Student Edition (SE) and Teacher Edition (TE)</i> of the Utah State Core Curriculum:95% Overall percentage of coverage in <i>ancillary materials</i> of the Utah Core Curriculum:89%					
STANDARD I: Students will expand number sense to understand, perform operations, and solve problems with real numbers.					
Percentage of coverage in the <i>student and teacher edition</i> for Standard I: <u>100</u> %	Percentage of coverage not in student or teacher edition, but covered in the <i>ancillary material</i> for Standard I: <u>0</u> %				

	CTIVES & INDICATORS Depressent real numbers as points on the number line	Coverage in Student Edition(SE) and Teacher Edition (TE) (pg #'s, etc.)	Coverage in Ancillary Material (titles, pg #'s, etc.)	Not covered in TE, SE or ancillaries
•	: Represent real numbers as points on the number line sh rational numbers from irrational numbers.			
a.		Warm Up Page(s): 47 New Concept Page(s): 2, 47, 70 Lesson Practice Page(s): 71 Practice Page(s): 71, 126, 163		
b.	Classify numbers as rational or irrational, knowing that rational numbers can be expressed as terminating or repeating decimals and irrational numbers can be expressed as non-terminating, non-repeating decimals.	Skills Bank Page(s): 851 Skills Bank Practice Page(s): 851 Warm Up Page(s): 2, 47 New Concept Page(s): 2, 3, 685, 686(wrap) Lesson Practice Page(s): 5 Practice Page(s): 6, 10, 25, 30, 71, 145, 163, 221	Cumulative Test Page(s): 20, 22, 23, 25 Benchmark Test Page(s): 157	
d.	Classify <i>pi</i> and square roots of non-perfect square numbers as irrational.	New Concept Page(s): 2, 69, 685, 686(wrap)	Cumulative Test Page(s): 20, 22	
		Lesson Practice		

d. Objective 1.2	Place rational and irrational numbers on a number line between two integers. Compute fluently and make reasonable estimates with	Page(s): 5 Practice Page(s): 71, 79, 221, 398 (wrap) Warm Up Page(s): 127 New Concept Page(s): 70 Lesson Practice Page(s): 71 Practice Page(s): 71, 95, 266 Challenge Page(s): 72	Cumulative Test Page(s): 28, 30 Benchmark Test Page(s): 158
	Simplify, add, subtract, multiply, and divide expressions with square roots.	Warm Up Page(s): 86, 282, 398-399, 449-451, 500-502, 684-687, 691-693 New Concept Page(s): 69-70, 399 Lesson Practice Page(s): 71, 451, 502, 687, 694 Practice Page(s): 78, 91, 101, 333, 403, 415, 452, 480, 503, 540, 608, 702 Challenge Page(s): 719	Cumulative Test Page(s): 3, 87, 91, 99, 104 Performance Task Page(s): 141, 154 Benchmark Test Page(s): 160, 163 End of Course Exam Page(s): 167, 171
b.	Evaluate and simplify numerical expressions containing rational numbers and square roots using the order of	Warm Up Page(s): 31, 43, 47	Cumulative Test Page(s): 29

	operations.		
	operations.	New Concept Page(s): 43-44	Benchmark Test Page(s): 160, 163
		Lesson Practice Page(s): 44	End of Course Exam Page(s): 167, 171
		Practice Page(s): 45, 50, 60, 67, 71, 101, 133, 152, 503, 540, 607	
		Challenge Page(s): 16, 35	
		Appendix Page(s): 843-845	
		Appendix Lesson Practice Page(s): 845	
c.	Compute solutions to problems, represent answers in exact form, and determine the reasonableness of answers.	Skills Bank Page(s): 847, 848, 863, 867, 872, 877, 878, 879, 880, 881, 882, 883	Cumulative Test Page(s): 19-22, 23-26, 27- 30, 31-34, 35-38, 39-42, 43-47, 48-50, 51-54, 55-
		Skills Bank Practice Page(s): 847, 848, 863, 867, 872, 877, 878, 879, 880, 881, 882, 883	58, 59-62, 63-66, 67-70, 71-74, 75-78, 79-82, 83- 86, 87-90, 91-94, 95-98, 99-102, 103-106, 107-110
		Warm Up Page(s): 7, 22, 43, 63, 120, 164, 171, 217, 263, 343, 375, 538, 678	Performance Task Page(s): 111-112, 113- 114, 115-116, 117-118,
		New Concept Page(s): 39, 135-136, 141, 466, 553, 717	119-120, 121-122, 123- 124, 125-126, 127-128, 129-130, 131-132, 133- 134, 135-136, 137-138,
		Lesson Practice Page(s): 29, 49, 59, 106, 123, 137, 166	139-140, 141-142, 143- 144, 145-146, 147-148, 149-150, 151-152, 153-
		Practice Page(s): 6, 10, 25, 30, 40, 56, 60, 71, 79, 133, 145, 163, 221, 522, 540, 607	154, 155-156 Benchmark Test Page(s): 157, 159, 160,

		Investigation Page(s): 53-54, 749-753 Lab Page(s): 352, 824 Challenge Page(s): 41, 79, 144, 269, 591, 760,	161, 162, 163, 164, 165, 166 End of Course Exam Page(s): 167-172	
		794, 823 Appendix Page(s): 830-832, 833-835, 838, 840-842 Appendix Lesson Practice Page(s): 832, 835-836, 839, 842		
d.	Calculate the measures of the sides of a right triangle using the Pythagorean Theorem.	Warm Up Page(s): 563, 796 New Concept Page(s): 557, 559 Lesson Practice Page(s): 559, 560 Practice Page(s): 561, 568, 574, 581, 591, 614, 637, 807	Cumulative Test Page(s): 88, 90, 92, 94, 107, 109 Performance Task Page(s): 141, 153 Benchmark Test Page(s): 166 End of Course Exam Page(s): 171	
STANDARD	II: Students will extend concepts of proportion to represent	nt and analyze linear relations.		
	ntage of coverage in the <i>student and teacher edition</i> for ard II: <u>100</u> %			n, but
OBJE	CTIVES & INDICATORS	Coverage in Student Edition(SE) and Teacher Edition (TE) (pg #'s, etc.)	Coverage in Ancillary Material (titles, pg #'s, etc.)	Not covered in TE, SE or ancillaries ✓
Objective 2.1	: Represent and analyze the slope of a line.			

a.	Identify the slope of a line when given points, a graph, or an equation.	Warm Up Page(s): 424, 436, 464, 647, 809 New Concept Page(s): 257, 275, 276, 329 Lesson Practice Page(s): 259, 278 Practice Page(s): 268-269, 280, 285, 292, 298, 311, 317, 327, 334, 340, 348 Investigation: Page(s): 396-397	Cumulative Test Page(s): 55, 64, 66, 72 Performance Task Page(s): 125, 130, 134, 135 Benchmark Test Page(s): 162, 164 End of Course Exam Page(s): 168
b.	Identify horizontal and vertical lines given the equations or slopes.	Warm Up Page(s): 510 New Concept Page(s): 258, 275, 329 Lesson Practice Page(s): 331 Practice Page(s): 28, 395, 434, 548, 574 Challenge Page(s): 222, 334	Opportunities exist to address this standard in: Cumulative Test Page(s): 64, 66
c.	Determine the effect of changes in slope or y-intercept t in $y = mx + b$.	New Concept Page(s): 180 Practice Page(s): 417, 433 Investigation Page(s): 396-397 Lab Page(s): 305	Cumulative Test Page(s): 63, 65 Benchmark Test Page(s): 163

d.	Determine and explain the meaning of slopes and intercepts using real-world examples.	Warm Up Page(s): 275 New Concept Page(s): 278, 310, 331 Lesson Practice Page(s): 311 Practice Page(s): 268-269, 274, 287, 311, 318, 340, 421	Performance Task Page(s): 125, 128, 134
	Model and interpret problems having a constant rate of linear functions.		
a.		Warm Up Page(s): 146 New Concept Page(s): 214, 310, 466, 469, 708 Lesson Practice Page(s): 214, 311, 470-471 Practice Page(s): 57, 126, 334, 389, 480, 491, 498, 528, 535, 562, 575 Investigation Page(s): 751 Lab Page(s): 464 Challenge Page(s): 126, 292, 334, 423, 527, 690 Appendix Page(s): 835	Cumulative Test Page(s): 10, 12, 44, 46, 75, 77, 108, 110 Performance Task Page(s): 115, 118, 121, 124, 125, 128, 129-130, 133-134, 137-138, 141, 143-144, 145-146, 147, 153, 155-156 Benchmark Test Page(s): 157, 159, 161, 164 End of Course Exam Page(s): 168, 170, 171

		Page(s): 836	
b.	Represent linear equations in slope-intercept form, $y = mx + b$, and standard form, $Ax + By = C$.	Warm Up Page(s): 345, 464 New Concept Page(s): 219-220, 307-310, 330, 424-	Cumulative Test Page(s): 67, 69 Performance Task Page(s): 128, 130, 133-
		426, 437-438 Lesson Practice Page(s): 220, 310-311, 426-427, 477, 517 (wrap), 518 Practice	134, 135 Benchmark Test Page(s): 161, 163, 164 End of Course Exam Page(s): 169
		Page(s): 328, 333, 342, 349, 350, 402, 410, 724 Investigation Page(s): 396-397	
		Lab Page(s): 177, 305 Challenge Page(s): 222	
c.	Distinguish between linear and non-linear functions by examining a table, equation, or graph.	New Concept Page(s): 179, 720 (wrap) Lesson Practice Page(s): 182 Practice	Cumulative Test Page(s): 43, 45
		Page(s): 184, 242 Challenge Page(s): 186	Current time Took
d.	Interpret the slope of a linear function as a rate of change in real-world situations.	Warm Up Page(s): 275 New Concept	Cumulative Test Page(s): 51, 53, 60, 62, 72, 74

		Page(s): 256-259, 278, 307 (wrap), 310	
		Lesson Practice Page(s): 259 Practice Page(s): 260, 268, 269, 287, 298	
	: Represent and analyze linear relationships using lations, expressions, and graphs.		
	Write the equation of a line when given two points or the slope and a point on the line.	Warm Up Page(s): 424	<u>Cumulative Test</u> Page(s): 60, 62, 67, 69
		New Concept Page(s): 310, 330-331, 425-426	End of Course Exam Page(s): 169
		Lesson Practice Page(s): 331, 426	
		Practice Page(s): 350, 366, 373, 388, 402, 427, 440, 447	
		Challenge Page(s): 312, 334	
b.	Approximate the equation of a line given the graph of a line.	New Concept Page(s): 309	Cumulative Test Page(s): 60, 62
		Lesson Practice Page(s): 310	Benchmark Test Page(s): 161
		Practice Page(s): 333, 428, 498	
		Lab Page(s): 464	
c.	Identify the <i>x</i> - and <i>y</i> -intercepts from an equation or graph of a line or a table of values.	Warm Up Page(s): 329, 424, 436, 647, 809	Cumulative Test Page(s): 44, 46, 64, 66
		New Concept	Performance Task

		Page(s): 217-220	Page(s): 121
		Lesson Practice Page(s): 220	Benchmark Test Page(s): 160
		Practice Page(s): 228, 241, 247, 261, 268, 280, 303, 311, 328	End of Course Exam Page(s): 169, 171
		Investigation Page(s): 396	
		Challenge Page(s): 515	
d.	Graph linear relations and inequalities by plotting points, by finding <i>x</i> - and <i>y</i> intercepts, or by using the slope and	Warm Up Page(s): 735	Cumulative Test Page(s): 43, 45, 56, 58
	any point on the line.	New Concept Page(s): 355-356, 647-649, 735	Performance Task Page(s): 138
		Lesson Practice Page(s): 357, 651	Benchmark Test Page(s): 164
		Practice Page(s): 359, 402, 423, 653, 689, 695, 726, 740, 768	
		Investigation Page(s): 396-397	
		<u>Lab</u> Page(s): 305, 645	
		Challenge Page(s): 222, 262, 608, 654, 674	
STANDARD	III: Students will develop fluency with the language and o	perations of algebra to analyze and	d represent relationships.
Percen	ntage of coverage in the student and teacher edition for	Percentage of coverage not in st	udent or teacher edition, but

Standa	ard III: <u>94</u> %	covered in the ancillary material	for Standard III: <u>0</u> %	ó
	CTIVES & INDICATORS	Coverage in Student Edition(SE) and Teacher Edition (TE) (pg #'s, etc.)	Coverage in Ancillary Material (titles, pg #'s, etc.)	Not covered in TE, SE or ancillaries
Objective 3.1:	: Simplify polynomials and the quotient of monomials.			
a.		Warm Up Page(s): 804 New Concept Page(s): 13, 88, 89, 123 Lesson Practice Page(s): 14, 89, 123, 174 Practice Page(s): 46, 61, 72, 78, 90, 109, 151, 196, 575 Challenge Page(s): 30, 35, 176, 203 Appendix Page(s): 833, 843-845 Appendix Lesson Practice Page(s): 835, 836, 845	Cumulative Test Page(s): 36, 38, 43, 45, 71, 73, 95, 97 Benchmark Test Page(s): 157, 159, 163, 165, 166 End of Course Exam Page(s): 171	
b.	Add and subtract polynomials.	New Concept Page(s): 335-339 Lesson Practice Page(s): 339 Practice	Cumulative Test Page(s): 96, 98, 84, 86 Benchmark Test Page(s): 157, 159, 161, 165 End of Course Exam	
c.	Multiply monomials by a polynomial.	Page(s): 342, 351, 373, 403, 433 Warm Up Page(s): 93, 110, 134, 592	Page(s): 170 Cumulative Test Page(s): 51, 53, 55, 57, 59, 61, 67, 69, 75, 77	
		New Concept		

		Page(s): 81, 243-245, 375 Lesson Practice Page(s): 82, 246, 379 Practice Page(s): 90, 131, 203, 311, 388, 410 Challenge Page(s): 158	Performance Task Page(s): 115 Benchmark Test Page(s): 157, 161 End of Course Exam Page(s): 168, 171
d.	Multiply binomials.	Warm Up Page(s): 390, 474, 493, 543, 592, 776 New Concept Page(s): 375-377, 390-392 Lesson Practice Page(s): 379, 393 Practice Page(s): 393, 395, 403, 421, 427, 435, 439, 499 Challenge Page(s): 85, 380, 504, 719	Cumulative Test Page(s): 63, 65, 67, 69, 71, 73, 76, 77, 79, 81 Benchmark Test Page(s): 159, 161 End of Course Exam Page(s): 169
e.	Simplify the quotient of monomials using positive exponents.	Warm Up Page(s): 43 New Concept Page(s): 88, 239, 243, 245 Lesson Practice Page(s): 240, 246 Practice Page(s): 61, 132 Challenge Page(s): 90	End of Course Exam Page(s): 167

	: Solve and interpret linear equations and inequalities in tions including real-world problems.		
a.	Solve single-variable linear equations and inequalities algebraically and graphically.	Warm Up Page(s): 120, 134, 190, 430, 455, 505, 532 New Concept Page(s): 103-106, 120-123, 134-136, 140-142, 430-432, 455-458, 481-483, 505-507, 532-534 Lesson Practice Page(s): 106, 123, 137, 142, 433, 459, 483, 507, 534 Practice Page(s): 107, 124, 131, 137, 142, 161, 167, 175, 216, 260, 459, 266, 285, 348, 357, 433, 440, 446, 453, 484, 535, 573 Lab Page(s): 352 Challenge Page(s): 108, 126, 139	Cumulative Test Page(s): 84, 86, 88, 90, 96, 98 Performance Task Page(s): 133 Benchmark Test Page(s): 159, 160, 161, 163, 164, 165 End of Course Exam Page(s): 168, 170
b.	Solve real-world problems involving constant rates of change.	Warm Up Page(s): 275 New Concept Page(s): 256-259, 278, 310 Lesson Practice Page(s): 259-260 Practice Page(s): 260, 268, 269, 274, 280, 286, 287, 292, 298, 318	Cumulative Test Page(s): 51, 53, 60, 62, 72, 74 Performance Task Page(s): 125
c.	Solve equations for a specified variable.	Warm Up	<u>Cumulative Test</u>

		Dec. (a), 207, 254, 550, 7(1	D = = = (=) : AA AC
		Page(s): 307, 354, 550, 761	Page(s): 44, 46
		New Concept Page(s): 171-173	Benchmark Test Page(s): 159
		Lesson Practice Page(s): 174	
		Practice Page(s): 174, 185, 194, 235, 240, 266, 372	
d.	Solve proportions that include algebraic first-degree expressions.	Warm Up Page(s): 329	Cumulative Test Page(s): 47, 49, 52, 54, 60, 62
		New Concept Page(s): 190-193, 223-225, 264	Performance Task Page(s): 125
		Lesson Practice Page(s): 193, 226-227, 266	Benchmark Test Page(s): 159, 166
		Practice Page(s): 196, 203, 214, 251, 262, 273, 280, 372, 673	
Objective 3.3 inequalities.	: Solve and interpret pairs of linear equations and		
a.	Solve systems of two linear equations graphically and algebraically with and without technology.	New Concept Page(s): 354-356, 382-386	Cumulative Test Page(s): 60, 62, 63, 64, 68, 70, 72, 74, 76, 78, 79, 81
		Lesson Practice Page(s): 357, 386-387 Practice	Performance Task Page(s): 130, 132, 133, 152
		Page(s): 373, 387, 393, 402, 403, 410, 416, 423, 428, 434, 447, 459, 460, 471, 491, 492, 499	Benchmark Test Page(s): 163, 165
		<u>Lab</u> Page(s): 352-353	End of Course Exam Page(s): 171

		Challenge	
		Page(s): 389	
b.	Determine the number of possible solutions for a system	Opportunities exist to address this	Opportunities exist to
	of two linear equations.	standard in:	address this standard in:
		New Concept Page(s): 354-356, 382-386	Cumulative Test Page(s): 60, 62, 63, 64, 68,
			70, 72, 74, 76, 78, 79, 81
		Lesson Practice Page(s): 357, 386	
		Page(s): 357, 386	
		Practice	
		Page(s): 460	
c.		New Concept	Cumulative Test
	solution.	Page(s): 735-738	Page(s): 107, 109
		Lesson Practice	Performance Task
		Page(s): 738	Page(s): 151
		Practice	
		Page(s): 739, 746, 758, 774, 786, 794,	
		808	
		<u>Challenge</u>	
		Page(s): 536	
Objective 3.4:	: Factor polynomials with common monomial factors and		
•	quadratic expressions.		
		Warm Up	Cumulative Test
	polynomial.	Page(s): 243, 322, 335, 543, 570	Page(s): 51, 53, 55, 57, 68, 70
		New Concept	'
		Page(s): 517-519, 238-240, 271-272,	Performance Task
		570-572	Page(s): 124
		Lesson Practice	Benchmark Test
		Page(s): 240, 272, 573	Page(s): 159
		<u>Practice</u>	

		Page(s): 247, 260, 286, 317, 580, 606, 614, 710 Investigation Page(s): 598-601 Challenge Page(s): 498, 521		
b.	Factor trinomials with integer coefficients of the form $x_2 + bx + c$.	Warm Up Page(s): 493, 517, 576, 609, 631, 655 New Concept Page(s): 474-477, 493-496, 517, 655-656 Lesson Practice Page(s): 478, 497, 659 Practice Page(s): 484, 491, 498, 502, 509, 514, 520, 527, 535, 540, 666, 675, 702, 711, 758 Investigation Page(s): 598-599	Cumulative Test Page(s): 75, 77, 79, 81, 83, 84, 85, 86, 91, 93, 99, 101 Benchmark Test Page(s): 163, 165	
c.	Factor the difference of two squares and perfect square trinomials.	Warm Up Page(s): 616 New Concept Page(s): 543-546 Lesson Practice Page(s): 546 Practice Page(s): 553, 560, 573, 590, 595, 606, 668 Investigation Page(s): 598-601	Cumulative Test Page(s): 65, 67, 88, 90, 91, 93	

_	: Solve quadratic equations using factoring or by taking			
square roots.				
a.	Solve quadratic equations that can be simplified to the form $x_2 = a$ where $a \ge 0$ by taking square roots.	New Concept Page(s): 684-687	Cumulative Test Page(s): 100, 102	
		Lesson Practice Page(s): 687		
		Practice Page(s): 688, 695, 703, 710, 717, 733, 741		
		Challenge Page(s): 660		
b.	Solve quadratic equations using factoring.	Warm Up Page(s): 712, 742	Cumulative Test Page(s): 100, 102	
		New Concept Page(s): 655-658	Benchmark Test Page(s): 166	
		Lesson Practice Page(s): 659		
		Practice Page(s): 667, 673, 682, 689, 695, 710, 760, 779		
		Challenge Page(s): 660		
c.	Write a quadratic equation when given the solutions.	Practice Page(s): 689, 726		
		Challenge Page(s): 748		
STANDARD IV: Students will understand concepts from statistics and apply statistical methods to solve problems.				
Percer	ntage of coverage in the student and teacher edition for	Percentage of coverage not in st	tudent or teacher edition, but	

Standard IV: <u>83</u> %		covered in the ancillary material for Standard IV: 16 %		
OBJECTIVES & INDICATORS Objective 4.1: Objective 1: Summarize, display, and analyze bivariate		Coverage in Student Edition(SE) and Teacher Edition (TE) (pg #'s, etc.)	Coverage in Ancillary Material (titles, pg #'s, etc.)	Not covered in TE, SE or ancillaries ✓
data.				
a.	Collect, record, organize, and display a set of data with at least two variables.	Opportunities exist to address this standard in: New Concept Page(s): 466-469 Lesson Practice Page(s): 470-471 Practice Page(s): 479, 485, 504, 535, 573 Lab Page(s): 464-465	Performance Task Page(s): 138 Benchmark Test Page(s): 164	
b.	Determine whether the relationship between two variables is approximately linear or non-linear by examination of a scatter plot.	Opportunities exist to address this standard in: New Concept Page(s): 466-467 Practice Page(s): 470 Lab Page(s): 464-465	Opportunities exist to address this standard in: Cumulative Test Page(s): 75, 77 Performance Task Page(s): 138 Benchmark Test Page(s): 164	
c.	Characterize the relationship between two linear related variables as having positive, negative, or approximately zero correlation.	New Concept Page(s): 467-469 Lesson Practice Page(s): 470-471 Practice Page(s): 472-473, 485, 504, 509,	Cumulative Test Page(s): 79, 81 Performance Task Page(s): 138 Benchmark Test Page(s): 164	

		516, 528	
Objective 4.2	: Estimate, interpret, and use lines fit to bivariate data.	,	
a.	Estimate the equation of a line of best fit to make and test conjectures.	New Concept Page(s): 466-467	Cumulative Test Page(s): 75, 77
		<u>Lesson Practice</u> Page(s): 470-471	Performance Task Page(s): 138
		Practice Page(s): 479, 498, 528, 554	Benchmark Test Page(s): 164
		Lab Page(s): 465	
b.	Interpret the slope and <i>y</i> -intercept of a line through data.	New Concept Page(s): 466-467 Practice	Cumulative Test Page(s): 51, 52, 53, 54, 60, 62, 72, 74
		Page(s): 479, 498	Performance Task Page(s): 121
		Page(s): 465	Benchmark Test Page(s): 164
			End of Course Exam Page(s): 168
c.	Predict <i>y</i> -values for given <i>x</i> -values when appropriate using a line fitted to bivariate numerical data.	New Concept Page(s): 469	Benchmark Test Page(s): 164
		Lesson Practice Page(s): 471	
		Practice Page(s): 479, 492	
		<u>Lab</u> Page(s): 464-465	